

REMARKS

Claims 1-36 are pending in this application. Claims 32-36 have been added. Claims 1-31 have been amended to provide a clearer presentation of the claimed subject matter.

Applicants are pleased to note that the Examiner indicated that claims 14-23 and 28-30 are allowed and claims 7 and 10-13 would be allowable if rewritten in independent form. Accordingly, Applicants present new claims 32-36 which correspond to claims 7 and 10-13 rewritten in independent form. Therefore, Applicants respectfully submit that claims 32-36 are in form for allowance.

Reconsideration and allowance in view of the foregoing amendments and following remarks are respectfully requested.

Drawings

The drawings were objected to under 37 C.F.R. §1.83 (p)(5) because the reference character “9” in Figure 9 and the reference character “34” in Figure 4 are not disclosed in the specification. Accordingly, Applicants have amended the specification to include the reference characters “9” and “34”. Specifically, Applicants have corrected the typographical error in “cryolite S” to read “cryolite 9,” in the paragraph starting at line 25 in page 11 of the specification and amended the phrase “A specially fitting flared protective collar 28...” to read “A specially fitting protective collar 28 having flared region 34...” in the paragraph starting at line 13 in page 13 of the specification. Therefore, Applicants respectfully request that the objection to the drawings under 37 C.F.R. § 1.84 (p)(5) be withdrawn.

Claim Rejections – 35 U.S.C. § 102

Claims 1-6, 8, 9, 24-27 and 31 were rejected under 35 U.S.C. § 102(b) as being anticipated by Pate (U.S. Patent No. 5,538,607).

Claim 1 has been amended. Claim 1 recites, *inter-alia*, “wherein said outer structural sheath has substantially the same thermal expansion characteristics as the core over an operating range of temperatures of said anode assembly, and the core and the outer structural sheath are in thermal and electrical contact over substantially the entire length of the outer structural sheath.”

Claim 24 has been amended. Claim 24 recites, *inter-alia*, “wherein said yoke is in thermal and electrical contact over substantially the entire length of the stub and said

yoke and said stubs have substantially the same thermal expansion characteristics over the operating range of temperatures of said anode assembly."

By having the core and the outer structural sheath in thermal and electrical contact over substantially the entire length of the outer structural sheath and/or having the yoke in thermal and electrical contact over substantially the entire length of the stub, this allows the provision of a good electrical and thermal contact between these components, thus ensuring a good conduction of current as well a good conduction of heat between these components.

Applicants respectfully submit that the amendments to claims 1 and 24 are fully supported by the original disclosure. For example, support for the claim language can be found in the specification starting at line 22 of page 3 through line 24 of page 4 and lines 13-17 in page 12 of the specification.

Pate discloses an anode bar in which an elongated copper core rod (21) is slit partially along its length to form a generally inverted Y-shaped member. Each leg (27) of the Y-shaped member is received in a metal sleeve (30) and freely inserted into a ring (40) with a polygonal opening (41) in the ring that matches a polygonal exterior surface of the associated leg. Weld intimately welds each ring (40) to each end (28) of each leg (27) (see abstract, col. 4 and Figures 1-5 in Pate). In Pate, only the ring part (40) of the metal sleeve (30) is welded to or in intimate contact with the associated end (28) of the leg (27). The entire length of the leg (27) is not welded to or in contact with a surface of the sleeve (30). As clearly shown in Figure 3 of Pate, there is an air gap between the leg (27) of the copper core (21) and an interior cylindrical surface (32) of the sleeve (30). Consequently, Pate does not disclose, teach or suggest "the core and the outer structural sheath are in thermal and electrical contact over substantially the entire length of the outer structural sheath," as recited in claim or "said yoke is in thermal and electrical contact over substantially the entire length of the stub," as recited in claim 24.

Therefore, Applicants respectfully submit that claims 1 and 24, and claims 2-6, 8, 9, 25-27 and 31 which depend directly or indirectly from either claim 1 or claim 24, are patentable. Thus, it is respectfully requested that the rejection of claims 1-6, 8, 9, 24-27 and 31 under § 102(b) over Pate be withdrawn.

CONCLUSION

Applicants respectfully point out that each of the claims has been amended to remove the reference numerals, which are a vestige of the preparation of the claims from non-U.S. practice. By the elimination of the reference numerals, Applicants intend that the resulting claims have a broader scope.

In view of the foregoing, the claims are now in form for allowance, and such action is hereby solicited. If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, he is kindly requested to contact the undersigned at the telephone number listed below.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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